

PIECE FOR COMPUTER AND 4 TROMBONI

(DEATH ON THE BORDER)

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Fulfillment of the Requirements
for the Degree of

MASTER OF MUSIC

Department of Music

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Also special thanks to Arthur Corra and John Rehm and ISU music department, Betty Plummer and ISU's International Studies Office.

The piece is dedicated to my MIDI class teacher Charles Stokes.

A.R.S.

PIECE FOR COMPUTER AND 4 TROMBONI

(DEATH ON THE BORDER)

Ali R. Saral

May 1992

Death on the Border is a piece for computer generated tape music and 4 tromboni. It is composed of 7 movements: The Prologue, The Moment, The Yearning, The Ritual, The Oblation, The Lamentation.

The tape part is generated at CCRMA (Center for Computer Research in Music and Acoustics) of Stanford University, California, on a NEXT workstation with a DSP card and the COMMON MUSIC package written in LISP computer language by Heinrich Taube.

Computer graphics techniques such as rosette, infinite regressions, tiling, tweening are used in the composition of the trombone parts.

The Prologue and the Epilogue are for tape only and all the other movements are for tape and tromboni. The durations are as follows : The Prolog 36 sec, The Moment 20 sec, The Yearning 1 min 50 sec, The Ritual 2 min 50 sec, The Oblation 2 min 5 sec, The Lamentation 2 min 30 sec, The Epilogue 40 sec. The total duration is approx. 10 min 50 sec.

The Prologue is an isorhythm based on a 12 tone series. The Moment is a single section emphasizing e as a so called tonal center. The Yearning is in AB form using the modal qualities of the 12 tone series of the first movement, with e as the modal center. The Ritual emphasizes the relations between specific notes of the 12 tone series and causes a modal effect. It has an ABA form from the point of the use of the composition algorithm. It uses isorhythmic structures and slightly alters them through the movement. The Lamentation is an AB form. B is the reverse of A in the trombone part.

The tape part loses the meter in the second section.
The Epilogue is an isorhythm based on 3 chords, built by
grouping the notes of the 12 tone series in 4 voice
chords.

The piece is composed as an abstraction of an East
German escaping to the West.

APPROVED:

Date Arthur E. Corra, Chair

Date John T. Rehm

Date Joaquin A. Villa

PIECE FOR COMPUTER AND 4 TROMBONI (DEATH ON THE BORDER)

for tape and 4 tromboni ①

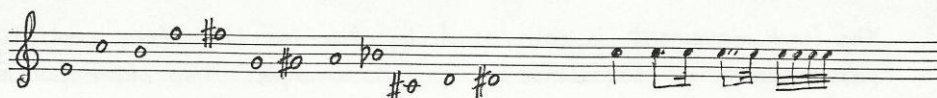
Dedicated to my MIDI class
teacher, Charles Stokes.

Ali Riza SARAL

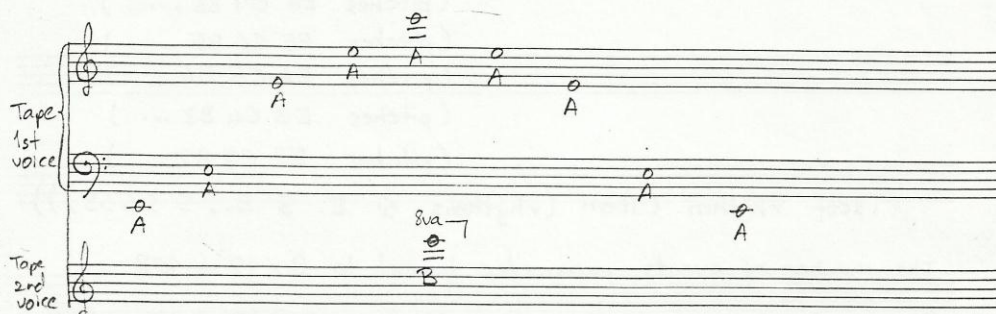
I. PROLOGUE ② (for tape only)

COLOR

TALEA



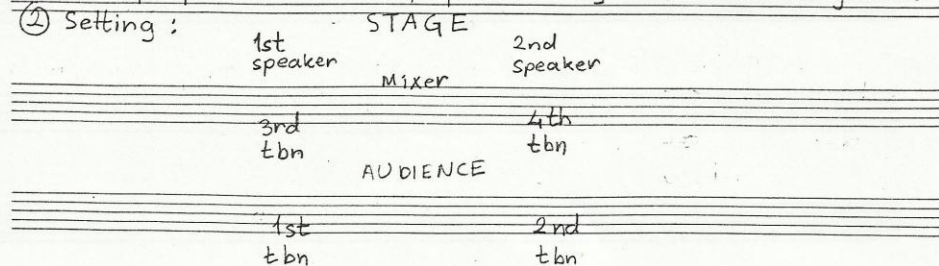
This isorhythm structure is called A, symbolizing both the color and the talea. The color is played according to the talea by the computer, A is played from different octaves. Also, an other voice plays A in a very fast tempo from a very high frequency. This is called B. The music can be symbolized as seen below:



Duration = 36" July 30, San Hose

① The tape parts have to be performed using a mixer and echo generator.

② Setting :



The tone meister is supposed to direct the performance if needed.

②

COMMON MUSIC (LISP) NOTATION:

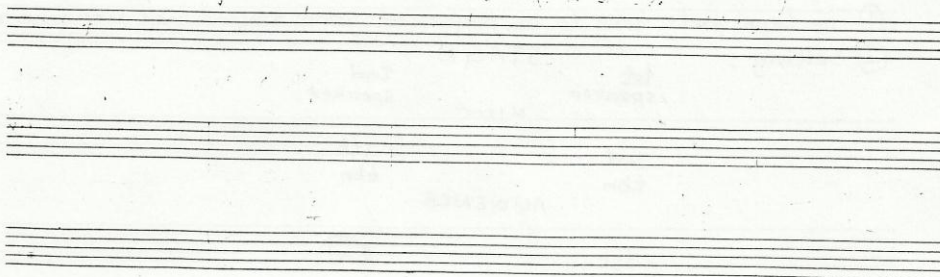
CCRMA 1990 Summer Course example files are created by David A. Jaffe using COMMON MUSIC package. COMMON MUSIC package is composed of a group of Common Lisp functions. They can be found in the Common Music Manual (Preliminary Draft) by Heinrich Taube. David A. Jaffe and Heinrich Taube are both musicians doing research work at CCRMA (Center for Computer Research in Music and Acoustics), Stanford University, California.

The first movement is composed by changing the freq and rhythm parameters of the Wave1_1.lisp example. Also other parameters such as duration, waveforms have been changed.

```
(self freq (item (pitches (pitches E2 C3 B2 ... )
                          (pitches E3 C4 B3 ... )
                          (pitches E4 C5 B4 ... )
                          (pitches E5 C6 B5 ... )
                          (pitches E6 C7 B6 ... )
                          (pitches E5 C6 B5 ... )
                          (pitches E4 C5 B4 ... )
                          (pitches E3 C4 B3 ... )
                          (pitches E2 C3 B2 ... )
                          )
              )
      (setf rhythm (item (rhythms Q E. S E. S S S S)))
```

The number of events parameter is set to $9 \times 12 = 108$.

The performance was done on a Next workstation with a DSP card.



II. THE MOMENT

①

Prestissimo

0"

I. NOTES RHYTHM NOTES RHY. NOTES RHY. NOTES RHY.
 pp IN RANDOM IN RANDOM IN CYCLE mp IN RANDOM IN RANDOM
 mp cresc.

II. NOTES RHYTHM NOTES RHY. NOTES RHY. NOTES
 pp IN RANDOM IN RANDOM IN CYCLE mp IN RANDOM
 mp cresc.

III. NOTES RHYTHM
 pp IN RANDOM IN RANDOM

IV. NOTES RHYTHM
 p IN RANDOM IN RANDOM

Tape 1st voice { (notes C1... to B7 in cycle)
 (rhythm 64)
 2nd voice { same as 1st voice

5"

I. NOTES gliss. RHY. NOTES gliss. RHY.
 IN CYCLE mf IN CYCLE mf cresc. NOTES RHY.
 mf cresc.

II. RHYTHM IN RANDOM NOTES gliss. RHY. IN RANDOM
 mf IN CYCLE mf cresc. NOTES RHY.
 mf cresc.

III. NOTES RHYTHM NOTES gliss. RHY. NOTES RHY. NOTES
 IN RANDOM IN RANDOM IN CYCLE mf IN RANDOM
 mf cresc. mf cresc.

IV. NOTES RHYTHM NOTES gliss. RHY. NOTES
 IN RANDOM IN RANDOM IN CYCLE mf IN RANDOM
 mf cresc. mf cresc.



Tape 2nd voice { same as 1st voice
 4th voice { same as 1st voice

ONER M. L. K. EVI
 Veznedler, büyük Reşit Paşa Cad. 30A
 Beyazıt Tel. 522 18 36

Handwritten musical notation on a five-staff system. The notation includes various musical symbols such as notes, rests, and dynamic markings. The text "NOTES" and "RHY." are written above the staves, and "IN RANDOM" and "IN CYCLE" are written below the staves. The dynamic markings include *f*, *ff*, and *mf*. The notation is written in a cursive, handwritten style.

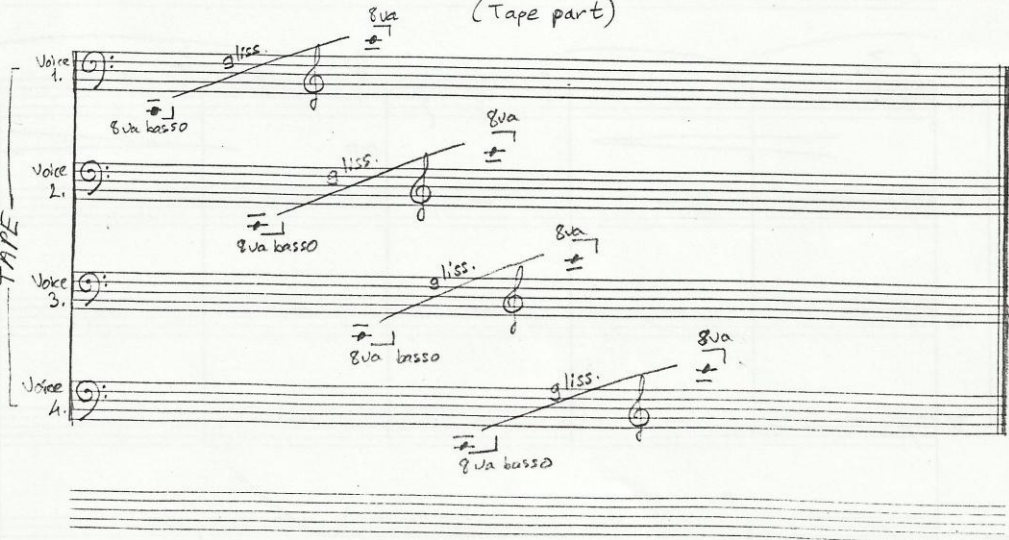
Handwritten musical notation on a five-staff system. The notation includes various musical symbols such as notes, rests, and dynamic markings. The text "NOTES" and "RHY." are written above the staves, and "IN RANDOM" and "IN CYCLE" are written below the staves. The dynamic markings include *f*, *ff*, and *mf*. The notation is written in a cursive, handwritten style.

duration = 20"
July 90 - Feb 92
San Hese, Istanbul

- ① **NOTES** indicates that those notes have to be played randomly according to the rhythm pattern that is given next to it.

- ② **RHYTHM** indicates that the notes that are indicated before should be with either eight or sixteenth values which are chosen randomly.

- ③ Unless indicated (by rests) the players have to continue playing the given structure until the next one.
- ④ The density of the texture is left to the choice of the performers' taste and physical ability. This movement is supposed to have a blasting effect.
- ⑤ The bar lines indicate the absolute time in seconds.
- ⑥ The notation of the trombone parts are adopted from the COMMON MUSIC notation of Heinrich Taube of CCRMA.

II.
THE MOMENT
(Tape part)

TAPE



III.
THE YEARNING

Moderato cantabile ♩ = 108

①

Tromboni

I. *pp* *espressivo* *p*

II. *p*

III. *p*

IV. *p*

Tape

High

Medium ① ② ③ ④ ⑤

Low *mp* *mf* *mf* *ff* *f*

Tbn.

I. *mp*

II. *mp*

III. *mp*

IV. *mp*

Tape

10" 15"

f

Handwritten musical score for Tbn. (Tuba) and Tape. The score is divided into four measures. The Tbn. part features various dynamics and articulations, while the Tape part includes rhythmic patterns and specific markings.

Tbn. Part:

- Measure 1:** I. *mf* (marked with a fermata)
- Measure 2:** I. *mp* *espressivo* (marked with a fermata); II. *mf* *espressivo* (marked with a fermata); IV. *mp* *espressivo* (marked with a fermata)
- Measure 3:** I. *pp* (marked with a fermata); II. *mf* *espressivo* (marked with a fermata); IV. *mp* *espressivo* (marked with a fermata)
- Measure 4:** I. *mf* (marked with a fermata); II. *mp* *espressivo* (marked with a fermata); IV. *mp* *espressivo* (marked with a fermata)

Tape Part:

- Measure 1:** *ff* (marked with a fermata)
- Measure 2:** *f* (marked with a fermata)
- Measure 3:** *f* (marked with a fermata)
- Measure 4:** *mf* (marked with a fermata)

Additional markings include *10"* and *25"* above the Tape part, and *11* above the first Tbn. staff.

Handwritten musical score for Tbn. (Tuba) and Tape. The score is divided into four measures. The Tbn. part features various dynamics and articulations, while the Tape part includes rhythmic patterns and specific markings.

Tbn. Part:

- Measure 1:** I. *mf* (marked with a fermata); II. *mp* (marked with a fermata); III. *mp* (marked with a fermata); IV. *mp* (marked with a fermata)
- Measure 2:** I. *mf* (marked with a fermata); II. *mp* (marked with a fermata); III. *mp* (marked with a fermata); IV. *mp* (marked with a fermata)
- Measure 3:** I. *f* (marked with a fermata); II. *mp* (marked with a fermata); III. *mp* (marked with a fermata); IV. *mp* (marked with a fermata)
- Measure 4:** I. *f* (marked with a fermata); II. *mp* (marked with a fermata); III. *mp* (marked with a fermata); IV. *mp* (marked with a fermata)

Tape Part:

- Measure 1:** *mp* (marked with a fermata)
- Measure 2:** *mp* (marked with a fermata)
- Measure 3:** *mp* (marked with a fermata)
- Measure 4:** *mp* (marked with a fermata)

Additional markings include *30"* above the Tape part, and *16* above the first Tbn. staff.

Handwritten musical score for a string quartet and tape. The score is for measures 21-24. It features four staves for strings (I, II, III, IV) and a tape section. The key signature has one sharp (F#). The string parts have various dynamics (mf, p) and articulations. The tape section has a 35-second delay and a 40-second delay, with dynamics mf, f, and mf.

Handwritten musical score for four tubas (I, II, III, IV) and a tape. The score is in G major, 2/4 time. The tuba parts are mostly rests, with some dynamics like 'f' and 'p'. The tape part has a 'Tape' label and a 'p' dynamic. The score is marked with '26' and '45''.

Handwritten musical score for Tbn. (Tubas) and Tape. The score is divided into four staves for Tbn. I, II, III, and IV. The key signature is one sharp (F#). The time signature is 4/4. The score begins with a measure marked 31. The Tbn. I staff has a melodic line starting with a half note F#4, followed by a quarter rest, then a half note F#4, and a quarter rest. The Tbn. II staff has a half note F#4, followed by a quarter rest, then a half note F#4, and a quarter rest. The Tbn. III and IV staves have half notes F#4 and F#4 respectively. The Tape staff has a half note F#4, followed by a quarter rest, then a half note F#4, and a quarter rest. The score ends with a measure marked 55".

Handwritten musical score for Tbn. (Tubas) and Tape. The score is divided into four staves for Tbn. I, II, III, and IV. The key signature is one sharp (F#). The time signature is 4/4. The score begins with a measure marked 36. The Tbn. I staff has a half note F#4, followed by a quarter rest, then a half note F#4, and a quarter rest. The Tbn. II staff has a half note F#4, followed by a quarter rest, then a half note F#4, and a quarter rest. The Tbn. III and IV staves have half notes F#4 and F#4 respectively. The Tape staff has a half note F#4, followed by a quarter rest, then a half note F#4, and a quarter rest. The score ends with a measure marked 60".

Handwritten musical score for four tubas (I, II, III, IV) and a tape. The score is in 4/4 time, marked with a treble clef and a key signature of one sharp (F#). The first measure shows tubas I, II, and III playing a half note F#4, while tuba IV plays a half note F#3. The second measure shows tubas I, II, and III playing a half note G#4, while tuba IV plays a half note G#3. The third measure shows tubas I, II, and III playing a half note A4, while tuba IV plays a half note A3. The fourth measure shows tubas I, II, and III playing a half note B4, while tuba IV plays a half note B3. The fifth measure shows tubas I, II, and III playing a half note C5, while tuba IV plays a half note C4. The sixth measure shows tubas I, II, and III playing a half note D5, while tuba IV plays a half note D4. The seventh measure shows tubas I, II, and III playing a half note E5, while tuba IV plays a half note E4. The eighth measure shows tubas I, II, and III playing a half note F#5, while tuba IV plays a half note F#4. The score includes dynamic markings of mf and f, and a crescendo hairpin. The tape part is marked with a 1' 10" and 1' 15" time signature.

Handwritten musical score for Tbn. (Tuba) and Tape. The score is divided into two systems. The first system is marked with a wavy line and 'f' (forte) above the staff. The second system is marked with a wavy line and 'mf' (mezzo-forte) above the staff. The Tbn. part is written in bass clef with a key signature of one sharp (F#). The Tape part is written in bass clef with a key signature of one sharp (F#). The score includes dynamic markings (f, mf, ff) and articulation marks (accents, slurs). The Tbn. part is divided into four staves (I, II, III, IV). The Tape part is divided into two staves (I, II). The score is numbered 46 at the beginning of the first system.

Handwritten musical score for four tubas (I, II, III, IV) and a Tape track. The score is marked with measure numbers 51 and 52. The tuba parts are written in bass clef with a key signature of one sharp (F#). The Tape track includes time markers 1'25" and 1'30". Dynamics include *ff* (fortissimo) and *f* (forte). The score ends with a double bar line and a repeat sign.

51

I. *ff*

II. *ff*

III. *f*

IV. *f*

Tape 1'25" 1'30"

ff ff

Handwritten musical score for four tubas (I, II, III, IV) and a Tape track. The score is marked with measure numbers 53 and 54. The tuba parts are written in bass clef with a key signature of one sharp (F#). The Tape track includes time markers 1'35" and 1'40". Dynamics include *p* (piano), *mp* (mezzo-piano), *f* (forte), *mf* (mezzo-forte), and *ff* (fortissimo). The score ends with a double bar line and a repeat sign.

53

I. *p*

II. *p*

III. *p*

IV. *p*

Tape 1'35" 1'40"

f > mf > ff

Handwritten musical score for Trombone (Tbn.) and Tape. The Tbn. part consists of four staves (I, II, III, IV) with notes and dynamic markings (pp, ppp, f, ff). The Tape part has a wavy line with a "1'45''" label. A bracket groups the Tbn. staves.

① indicates vibrato, with its depth and frequency.

② indicates a single sustained pitch.

③ indicates a glissando towards higher pitches.

④ The synchronization of the tape and trombone parts is not important. The tape part is supposed to have a totally random character.

⑤ The tape part is not unique, it changes between different performances. There are 2 tape parts at least for the whole piece.

Handwritten musical score for Trombone (Tbn.) and Tape. The Tbn. part consists of four staves (I, II, III, IV) with notes and dynamic markings (pp, ppp, f, ff). The Tape part has a wavy line with a "1'45''" label. A bracket groups the Tbn. staves.

duration = 1'45''
Soprano, Soprano
Normal, IL, Istanbul

IV.

©

THE RITUAL (tape part)

Approx. Duration

Common Music Algorithm

A	6"	(notes E3 C4 B3 F4 FS4 G3 GS3 A3 AS3 CS2 D2 DS2 in cycle) (rhythm ^① Q. E. S E. 32 32 32 32 32 S S E in cycle tempo 112 for 2)
B	16"	(notes (notes (E3 (C4:weight5)(B3:weight4)(F4:weight2)(FS4:weight2) in random for 4) (G3 GS3 (A4:weight4)(AS4:weight4) in random for 6) (CS2 D2 DS2))))
A	4"	(notes E3 C4 B3 F4 FS4 G3 GS3 A3 AS3 CS2 D2 DS2 in cycle)
B	40"	(notes same as B)
C	12"	(notes (notes (E3 (C4:weight5)(B3:weight4)(F4:weight5)(FS4:weight5) in random for 6) (G3 GS3 A3 AS3 in random for 4) (CS2 D2 DS2))))
B	55"	
A	10"	
B	8"	
A	6"	
D	19"	(notes (notes (E3 (C4:weight2)(B3:weight2)(F4:weight5)(FS4:weight5) in random) (G3 GS3 (A4:weight4)(AS4:weight4) in random) (CS2 D2 DS2))))
Total Duration \approx 2' 50"		Sep 90 Normal, Illinois

- ① Rhythm is the same through out the piece.
② weight parameter increases the possibility of that item to be realized in a random sequence

IV.

①

Allegro e giocoso, $\text{♩} = 126$

RITUAL
(Trombone parts)

A COLOR ① con sordino TALEA 8 COLOR TALEA

I. *mp*

II. ②

III. con sordino *mp*

IV.

C D

I. con sordino

II. ♯^{b} *mp*

III.

IV. con sordino *mp*

E F

I. ♯^{b} *mf*

II.

III.

IV. ♯^{b}

① Please, have a look at the *mf* performance notes at the end.

g COLOR TALEA COLOR H TALEA

Tbn. I. II. III. IV.

mf

I jstabe

Tbn. I. II. III. IV.

mf f

K #stabe

Tbn. I. II. III. IV.

f

Handwritten musical score for four tubas (I, II, III, IV) across three systems. The score is divided into sections labeled "COLOR" and "TALEA".

System 1:

- Section 1 (T): COLOR (I, II, III, IV), TALEA (I, II, III, IV). Dynamics: *mp*.
- Section 2 (U): COLOR (I, II, III, IV), TALEA (I, II, III, IV). Dynamics: *mp*.

System 2:

- Section 3 (V): COLOR (I, II, III, IV), TALEA (I, II, III, IV). Dynamics: *mp*, *cresc.*.
- Section 4 (W): COLOR (I, II, III, IV), TALEA (I, II, III, IV). Dynamics: *mp*, *cresc.*.

System 3:

- Section 5 (X): COLOR (I, II, III, IV), TALEA (I, II, III, IV). Dynamics: *mp*, *cresc.*.
- Section 6 (Y): COLOR (I, II, III, IV), TALEA (I, II, III, IV). Dynamics: *mp*, *cresc.*.

5

Handwritten musical score for Trombones (Tbn.) I, II, III, and IV. The score is divided into two systems. The first system contains measures with notes and rests, marked with dynamics *mf* and *p*. The second system contains measures with notes and rests, marked with dynamics *f* and *mp*. The word "segue" is written at the end of each system.

Handwritten musical score for Trombones (Tbn.) I, II, III, and IV. The score is divided into two systems. The first system contains measures with notes and rests, marked with dynamics *mf* and *p*. The second system contains measures with notes and rests, marked with dynamics *f* and *mp*. The word "segue" is written at the end of each system.

① COLOR and TALEA belongs to an isorhythmic structure in which; the pitches of the COLOR are played sequentially, with the last one preceding the first one, forming a loop. The note durations are controlled by the rhythm indicated in the talea and the tempo chosen by the performer. The rhythmic pattern has

- to be played in a loop also.
- ② The empty bars indicate that, the performer is not going to play during that isorhythmic structure or begin a little bit late.
- ③ The number of repetitions or loops will be decided by the performer and the ensemble.
- ④ The synchronization and duration of the trombone's parts with the tape part is going to be decided by the performers.
- ⑤ A sample realization is given along with this score.

Handwritten musical score for Trombones (Tbn.) I, II, III, and IV. The score is divided into two systems. The first system contains measures with notes and rests, marked with dynamics *mf* and *p*. The second system contains measures with notes and rests, marked with dynamics *f* and *mp*. The word "segue" is written at the end of each system.

①

IV.

Allegro e giocoso, ♩ = 126

RITUAL

(A SAMPLE REALIZATION
FOR TROMBONE PARTS)

1 con sordino

mp

Tromboni I, II, III, IV

5

con sordino

mp

Tbn. I, II, III, IV

Handwritten musical score for four tubas (I, II, III, IV) and a Tbn. section. The score is written on five staves. The first staff (I) begins with a measure number 9 and a *mf* dynamic marking. The Tbn. section is indicated by a bracket on the left. The fourth staff (IV) contains a measure with a *mf* dynamic marking. The score is written in bass clef with a key signature of one sharp (F#).

Handwritten musical score for four tubas (I, II, III, IV) and a Tbn. section. The score is written on five staves. The first staff (I) begins with a measure number 13. The Tbn. section is indicated by a bracket on the left. The score is written in bass clef with a key signature of one sharp (F#). Dynamics include *mf* and *f*. The fourth staff (IV) contains a measure with a *f* dynamic marking.

Handwritten musical score for four tubas (I, II, III, IV). The music is in 2/4 time and features a key signature of one sharp (F#). The first system begins at measure 14. The notation includes various note values (quarter, eighth, and sixteenth notes) and rests. Dynamics markings include *f* (forte) and *mf* (mezzo-forte). The score is written on four staves, with the tuba parts labeled I, II, III, and IV. The first staff (I) has a treble clef, while the others have bass clefs. The music is characterized by a steady rhythmic pattern with some melodic variation.

Handwritten musical score for four tubas (I, II, III, IV). The music is in 2/4 time and features a key signature of one sharp (F#). The second system begins at measure 21. The notation includes various note values (quarter, eighth, and sixteenth notes) and rests. Dynamics markings include *mp* (mezzo-piano) and *p* (piano). The score is written on four staves, with the tuba parts labeled I, II, III, and IV. The first staff (I) has a treble clef, while the others have bass clefs. The music continues the rhythmic and melodic themes from the first system, with some changes in dynamics.

4

25

Tbn.

I. *mp*

II.

III. *mp*

IV.

29

Tbn.

I.

II.

III. *mf*

IV. *mp* *mf*

33

I. *mf*

II. *f*

Tbn. *p*

III. *mp*

IV. *mp*

34

I. *mf*

II. *f*

Tbn. *f*

III. *f*

IV. *f*

6

A1

Tbn.

I. G_2

II. G_2

III. G_2

IV. G_2

A5

Tbn.

I. G_2

II. G_2

III. G_2

IV. G_2

Brussels, March 1st, 1912

①

1
Andante misterioso, $\text{♩} = 93$

gliss.
f
con fuoco

1. *Larghetto misterioso, d=62*

Tape

2va bassa

ff

Handwritten musical score for four tubas (I, II, III, IV) in E-flat major, 4/4 time. The score is for measures 6 through 9. It features various dynamics (f, mf), glissando markings, and complex rhythmic patterns including triplets and sixteenth notes. The notation is in bass clef with one flat (B-flat).

[illegible]

2

11

I

II

III

IV

mp
piacevole

mp

mp

Tape

5

cresc poco a poco

I

II

III

IV

mp

mf

f espressivo

mf risoluto

mp tenuto

8

3

22

I. *f* *espressivo* *mf*

II.

Tbn. III. *mp* *mf*

IV. *mf* *mp*

10

Tape

27 *pp*

I. *cresc. poco a poco* *f*

II. *mf* *espressivo*

Tbn. III. *decresc.* *p*

IV. *decresc.* *pp*

13

Tape

32

Tbn.

I. *mf* risoluto

II. *ff* espressivo

III. *mf* risoluto

IV. *ff* espressivo

f

mf

mp

mp

mf risoluto

ff espressivo

f

Tape

cresc.

37

Tbn.

I. *ff* espressivo

II. *mf* risoluto

III. *f*

IV. *mp*

mp

mf risoluto

mp

ff espressivo

mp risoluto

mp

ffff

42

I. *mp risoluto*

II. *mf espressivo*

III. *p*

IV. *ff espressivo*

Tbn. *mp*

p

mp risoluto

mp

ff espressivo

mf

Tape

47

I. *mf*

II. *f espressivo*

III. *p risoluto*

IV. *mp*

Tbn. *p*

p

pp

f espressivo

Tape

52

pp

f espressivo

mp

p risoluto

pp

f

f espressivo

mp

p

mp

mp

p risoluto

p

pp

fff

8va bassa

54

p

mp risoluto

mp

mf espressivo

mp

mp

f espressivo

mf

f espressivo

ord.

8va

Handwritten musical score for four tubas (I, II, III, IV) and a tape recording. The score is written in bass clef with a key signature of one flat (B-flat). The notation includes various musical symbols such as notes, rests, and dynamic markings.

First System:

- Tuba I:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mf*. Marking: *calando*.
- Tuba II:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mf*. Marking: *calando*.
- Tuba III:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mf*. Marking: *calando*.
- Tuba IV:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.

Second System:

- Tuba I:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.
- Tuba II:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.
- Tuba III:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.
- Tuba IV:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.

Third System:

- Tuba I:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.
- Tuba II:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.
- Tuba III:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.
- Tuba IV:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.

Fourth System:

- Tuba I:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.
- Tuba II:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.
- Tuba III:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.
- Tuba IV:** Starts with a half note B-flat, followed by a half note B-flat, and a half note B-flat. Dynamic: *mp*. Marking: *calando*.

Handwritten notes:

- mp* *risolto*
- mp*
- mf* *calando*

Duration and Date:

duration = 2' 5"
July 90 - Feb 92
San Jose, Istanbul, Karlsruhe

VI

THE LAMENTATION

Adagio

1 tempo rubato $\text{♩} = 72$

Solo Trombone

tempo ostinato. $\text{♩} = 60$

Tape

16 lontano $\text{♩} = 16$

f \bar{A} pp W f \bar{A} f

10" 20" 30"

6

Trombone

16

p

mf dolce e sostenuto

Tape

pp mf

40" poco accel.

50"

11

Trombone

f appenato

Tape

f

poco allarg.

60" I. Tempo

16

Trombone

mf marcato

f

Tape

① Performed by the computer as sprechstimme.

1'10" 1'20"

21

Trombone

mf

sff > p mf

Tape

mf

1'30" poco allarg. 1'40"

26

Trombone

f

p

f

mf

sostenuto poco a poco

f sonoro

senza metro ① ②

Tape

f

poco accel. 1'50" I. Tempo

31

Trombone

f

mf

Tape

④ The audience is welcome to blow whistles or shout sharp cries in memoriam till the end of the movement.

2' 2'10"

36

decresc.

2'20" 2'30"

41 45

niente

p

duration = 2'30"
July 90 Feb 92
Can Har - 1st mtr 1'

② The tape part has no more meter. The uncontinuous bar lines serve the trombone player as an "approximate" synchronization sign. The durations of the notes are indicated according to their beginning, not to the meter. The rests are not shown. The tape part is designed to arouse a random effect, a non-meter effect.

VII.

EPILOGUE
(for tape only)

With a suddenly changing
random tempo, to be played in darkness

COLOR

TALEA

Tape

I. II. III.

Duration = 40"
July 1990
San Jose

Three chords are played according to the talea. The rhythmic identity of the talea is hidden by the chosen envelope of the sound. Also the tempo changes suddenly and in random through out the piece. The chords can be played from all octaves.

Duration \approx 40" (dependent on the random values of the tempo)

Piece for Computer and 4 Tromboni

Death on the Border-II (Moment)

Ali Riza SARAL

Trombone

First system of music for four Trombones. The key signature has one sharp (F#) and the time signature is 4/4. The first Trombone part starts with a quarter note F#4, followed by eighth notes G#4, A4, B4, C5, D5, E5, F#5, G#5, A5, B5, C6, D6, E6, F#6, G#6, A6, B6, C7, D7, E7, F#7, G#7, A7, B7, C8, D8, E8, F#8, G#8, A8, B8, C9, D9, E9, F#9, G#9, A9, B9, C10, D10, E10, F#10, G#10, A10, B10, C11, D11, E11, F#11, G#11, A11, B11, C12, D12, E12, F#12, G#12, A12, B12, C13, D13, E13, F#13, G#13, A13, B13, C14, D14, E14, F#14, G#14, A14, B14, C15, D15, E15, F#15, G#15, A15, B15, C16, D16, E16, F#16, G#16, A16, B16, C17, D17, E17, F#17, G#17, A17, B17, C18, D18, E18, F#18, G#18, A18, B18, C19, D19, E19, F#19, G#19, A19, B19, C20, D20, E20, F#20, G#20, A20, B20, C21, D21, E21, F#21, G#21, A21, B21, C22, D22, E22, F#22, G#22, A22, B22, C23, D23, E23, F#23, G#23, A23, B23, C24, D24, E24, F#24, G#24, A24, B24, C25, D25, E25, F#25, G#25, A25, B25, C26, D26, E26, F#26, G#26, A26, B26, C27, D27, E27, F#27, G#27, A27, B27, C28, D28, E28, F#28, G#28, A28, B28, C29, D29, E29, F#29, G#29, A29, B29, C30, D30, E30, F#30, G#30, A30, B30, C31, D31, E31, F#31, G#31, A31, B31, C32, D32, E32, F#32, G#32, A32, B32, C33, D33, E33, F#33, G#33, A33, B33, C34, D34, E34, F#34, G#34, A34, B34, C35, D35, E35, F#35, G#35, A35, B35, C36, D36, E36, F#36, G#36, A36, B36, C37, D37, E37, F#37, G#37, A37, B37, C38, D38, E38, F#38, G#38, A38, B38, C39, D39, E39, F#39, G#39, A39, B39, C40, D40, E40, F#40, G#40, A40, B40, C41, D41, E41, F#41, G#41, A41, B41, C42, D42, E42, F#42, G#42, A42, B42, C43, D43, E43, F#43, G#43, A43, B43, C44, D44, E44, F#44, G#44, A44, B44, C45, D45, E45, F#45, G#45, A45, B45, C46, D46, E46, F#46, G#46, A46, B46, C47, D47, E47, F#47, G#47, A47, B47, C48, D48, E48, F#48, G#48, A48, B48, C49, D49, E49, F#49, G#49, A49, B49, C50, D50, E50, F#50, G#50, A50, B50, C51, D51, E51, F#51, G#51, A51, B51, C52, D52, E52, F#52, G#52, A52, B52, C53, D53, E53, F#53, G#53, A53, B53, C54, D54, E54, F#54, G#54, A54, B54, C55, D55, E55, F#55, G#55, A55, B55, C56, D56, E56, F#56, G#56, A56, B56, C57, D57, E57, F#57, G#57, A57, B57, C58, D58, E58, F#58, G#58, A58, B58, C59, D59, E59, F#59, G#59, A59, B59, C60, D60, E60, F#60, G#60, A60, B60, C61, D61, E61, F#61, G#61, A61, B61, C62, D62, E62, F#62, G#62, A62, B62, C63, D63, E63, F#63, G#63, A63, B63, C64, D64, E64, F#64, G#64, A64, B64, C65, D65, E65, F#65, G#65, A65, B65, C66, D66, E66, F#66, G#66, A66, B66, C67, D67, E67, F#67, G#67, A67, B67, C68, D68, E68, F#68, G#68, A68, B68, C69, D69, E69, F#69, G#69, A69, B69, C70, D70, E70, F#70, G#70, A70, B70, C71, D71, E71, F#71, G#71, A71, B71, C72, D72, E72, F#72, G#72, A72, B72, C73, D73, E73, F#73, G#73, A73, B73, C74, D74, E74, F#74, G#74, A74, B74, C75, D75, E75, F#75, G#75, A75, B75, C76, D76, E76, F#76, G#76, A76, B76, C77, D77, E77, F#77, G#77, A77, B77, C78, D78, E78, F#78, G#78, A78, B78, C79, D79, E79, F#79, G#79, A79, B79, C80, D80, E80, F#80, G#80, A80, B80, C81, D81, E81, F#81, G#81, A81, B81, C82, D82, E82, F#82, G#82, A82, B82, C83, D83, E83, F#83, G#83, A83, B83, C84, D84, E84, F#84, G#84, A84, B84, C85, D85, E85, F#85, G#85, A85, B85, C86, D86, E86, F#86, G#86, A86, B86, C87, D87, E87, F#87, G#87, A87, B87, C88, D88, E88, F#88, G#88, A88, B88, C89, D89, E89, F#89, G#89, A89, B89, C90, D90, E90, F#90, G#90, A90, B90, C91, D91, E91, F#91, G#91, A91, B91, C92, D92, E92, F#92, G#92, A92, B92, C93, D93, E93, F#93, G#93, A93, B93, C94, D94, E94, F#94, G#94, A94, B94, C95, D95, E95, F#95, G#95, A95, B95, C96, D96, E96, F#96, G#96, A96, B96, C97, D97, E97, F#97, G#97, A97, B97, C98, D98, E98, F#98, G#98, A98, B98, C99, D99, E99, F#99, G#99, A99, B99, C100, D100, E100, F#100, G#100, A100, B100, C101, D101, E101, F#101, G#101, A101, B101, C102, D102, E102, F#102, G#102, A102, B102, C103, D103, E103, F#103, G#103, A103, B103, C104, D104, E104, F#104, G#104, A104, B104, C105, D105, E105, F#105, G#105, A105, B105, C106, D106, E106, F#106, G#106, A106, B106, C107, D107, E107, F#107, G#107, A107, B107, C108, D108, E108, F#108, G#108, A108, B108, C109, D109, E109, F#109, G#109, A109, B109, C110, D110, E110, F#110, G#110, A110, B110, C111, D111, E111, F#111, G#111, A111, B111, C112, D112, E112, F#112, G#112, A112, B112, C113, D113, E113, F#113, G#113, A113, B113, C114, D114, E114, F#114, G#114, A114, B114, C115, D115, E115, F#115, G#115, A115, B115, C116, D116, E116, F#116, G#116, A116, B116, C117, D117, E117, F#117, G#117, A117, B117, C118, D118, E118, F#118, G#118, A118, B118, C119, D119, E119, F#119, G#119, A119, B119, C120, D120, E120, F#120, G#120, A120, B120, C121, D121, E121, F#121, G#121, A121, B121, C122, D122, E122, F#122, G#122, A122, B122, C123, D123, E123, F#123, G#123, A123, B123, C124, D124, E124, F#124, G#124, A124, B124, C125, D125, E125, F#125, G#125, A125, B125, C126, D126, E126, F#126, G#126, A126, B126, C127, D127, E127, F#127, G#127, A127, B127, C128, D128, E128, F#128, G#128, A128, B128, C129, D129, E129, F#129, G#129, A129, B129, C130, D130, E130, F#130, G#130, A130, B130, C131, D131, E131, F#131, G#131, A131, B131, C132, D132, 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C155, D155, E155, F#155, G#155, A155, B155, C156, D156, E156, F#156, G#156, A156, B156, C157, D157, E157, F#157, G#157, A157, B157, C158, D158, E158, F#158, G#158, A158, B158, C159, D159, E159, F#159, G#159, A159, B159, C160, D160, E160, F#160, G#160, A160, B160, C161, D161, E161, F#161, G#161, A161, B161, C162, D162, E162, F#162, G#162, A162, B162, C163, D163, E163, F#163, G#163, A163, B163, C164, D164, E164, F#164, G#164, A164, B164, C165, D165, E165, F#165, G#165, A165, B165, C166, D166, E166, F#166, G#166, A166, B166, C167, D167, E167, F#167, G#167, A167, B167, C168, D168, E168, F#168, G#168, A168, B168, C169, D169, E169, F#169, G#169, A169, B169, C170, D170, E170, F#170, G#170, A170, B170, C171, D171, E171, F#171, G#171, A171, B171, C172, D172, E172, F#172, G#172, A172, B172, C173, D173, E173, F#173, G#173, A173, B173, C174, D174, E174, F#174, G#174, A174, B174, C175, D175, E175, F#175, G#175, A175, B175, C176, D176, E176, F#176, G#176, A176, B176, C177, D177, E177, F#177, G#177, A177, B177, C178, D178, E178, F#178, G#178, A178, B178, C179, D179, E179, F#179, G#179, A179, B179, C180, D180, E180, F#180, G#180, A180, B180, C181, D181, E181, F#181, G#181, A181, B181, C182, D182, E182, F#182, G#182, A182, B182, C183, D183, E183, F#183, G#183, A183, B183, C184, D184, E184, F#184, G#184, A184, B184, C185, D185, E185, F#185, G#185, A185, B185, C186, D186, E186, F#186, G#186, A186, B186, C187, D187, E187, F#187, G#187, A187, B187, C188, D188, E188, F#188, G#188, A188, B188, C189, D189, E189, F#189, G#189, A189, B189, C190, D190, E190, F#190, G#190, A190, B190, C191, D191, E191, F#191, G#191, A191, B191, C192, D192, E192, F#192, G#192, A192, B192, C193, D193, E193, F#193, G#193, A193, B193, C194, D194, E194, F#194, G#194, A194, B194, C195, D195, E195, F#195, G#195, A195, B195, C196, D196, E196, F#196, G#196, A196, B196, C197, D197, E197, F#197, G#197, A197, B197, C198, D198, E198, F#198, G#198, A198, B198, C199, D199, E199, F#199, G#199, A199, B199, C200, D200, E200, 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D223, E223, F#223, G#223, A223, B223, C224, D224, E224, F#224, G#224, A224, B224, C225, D225, E225, F#225, G#225, A225, B225, C226, D226, E226, F#226, G#226, A226, B226, C227, D227, E227, F#227, G#227, A227, B227, C228, D228, E228, F#228, G#228, A228, B228, C229, D229, E229, F#229, G#229, A229, B229, C230, D230, E230, F#230, G#230, A230, B230, C231, D231, E231, F#231, G#231, A231, B231, C232, D232, E232, F#232, G#232, A232, B232, C233, D233, E233, F#233, G#233, A233, B233, C234, D234, E234, F#234, G#234, A234, B234, C235, D235, E235, F#235, G#235, A235, B235, C236, D236, E236, F#236, G#236, A236, B236, C237, D237, E237, F#237, G#237, A237, B237, C238, D238, E238, F#238, G#238, A238, B238, C239, D239, E239, F#239, G#239, A239, B239, C240, D240, E240, F#240, G#240, A240, B240, C241, D241, E241, F#241, G#241, A241, B241, C242, D242, E242, F#242, G#242, A242, B242, C243, D243, E243, F#243, G#243, A243, B243, C244, D244, E244, F#244, G#244, A244, B244, C245, D245, E245, F#245, G#245, A245, B245, C246, D246, E246, F#246, G#246, A246, B246, C247, D247, E247, F#247, G#247, A247, B247, C248, D248, E248, F#248, G#248, A248, B248, C249, D249, E249, F#249, G#249, A249, B249, C250, D250, E250, F#250, G#250, A250, B250, C251, D251, E251, F#251, G#251, A251, B251, C252, D252, E252, F#252, G#252, A252, B252, C253, D253, E253, F#253, G#253, A253, B253, C254, D254, E254, F#254, G#254, A254, B254, C255, D255, E255, F#255, G#255, A255, B255, C256, D256, E256, F#256, G#256, A256, B256, C257, D257, E257, F#257, G#257, A257, B257, C258, D258, E258, F#258, G#258, A258, B258, C259, D259, E259, F#259, G#259, A259, B259, C260, D260, E260, F#260, G#260, A260, B260, C261, D261, E261, F#261, G#261, A261, B261, C262, D262, E262, F#262, G#262, A262, B262, C263, D263, E263, F#263, G#263, A263, B263, C264, D264, E264, F#264, G#264, A264, B264, C265, D265, E265, F#265, G#265, A265, B265, C266, D266, E266, F#266, G#266, A266, B266, C267, D267, E267, F#267, G#267, A267, B267, C268, D268, E268, F#268, G#268, A268, B268, C269, D269, E269, F#269, G#269, A269, B269, C270, D270, E270, F#270, G#270, A270, B270, C271, D271, E271, F#271, G#271, A271, B271, C272, D272, E272, F#272, G#272, A272, B272, C273, D273, E273, F#273, G#273, A273, B273, C274, D274, E274, F#274, G#274, A274, B274, C275, D275, E275, F#275, G#275, A275, B275, C276, D276, E276, F#276, G#276, A276, B276, C277, D277, E277, F#277, G#277, A277, B277, C278, D278, E278, F#278, G#278, A278, B278, C279, D279, E279, F#279, G#279, A279, B279, C280, D280, E280, F#280, G#280, A280, B280, C281, D281, E281, F#281, G#281, A281, B281, C282, D282, E282, F#282, G#282, A282, B282, C283, D283, E283, F#283, G#283, A283, B283, C284, D284, E284, F#284, G#284, A284, B284, C285, D285, E285, F#285, G#285, A285, B285, C286, D286, E286, F#286, G#286, A286, B286, C287, D287, E287, F#287, G#287, A287, B287, C288, D288, E288, F#288, G#288, A288, B288, C289, D289, E289, F#289, G#289, A289, B289, C290, D290, E290, F#290, G#290, A290, B290, C291, D291, E291, F#291, G#291, A291, B291, C292, D292, E292, F#292, G#292, A292, B292, C293, D293, E293, F#293, G#293, A293, B293, C294, D294, E294, F#294, G#294, A294, B294, C295, D295, E295, F#295, G#295, A295, B295, C296, D296, E296, F#296, G#296, A296, B296, C297, D297, E297, F#297, G#297, A297, B297, C298, D298, E298, F#298, G#298, A298, B298, C299, D299, E299, F#299, G#299, A299, B299, C300, D300, E300, F#300, G#300, A300, B300, C301, D301, E301, F#301, G#301, A301, B301, C302, D302, E302, F#302, G#302, A302, B302, C303, D303, E303, F#303, G#303, A303, B303, C304, D304, E304, F#304, G#304, A304, B304, C305, D305, E305, F#305, G#305, A305, B305, C306, D306, E306, F#306, G#306, A306, B306, C307, D307, E307, F#307, G#307, A307, B307, C308, D308, E308, F#308, G#308, A308, B308, C309, D309, E309, F#309, G#309, A309, B309, C310, D310, E310, F#310, G#310, A310, B310, C311, D311, E311, F#311, G#311, A311, B311, C312, D312, E312, F#312, G#312, A312, B312, C313, D313, E313, F#313, G#313, A313, B313, C314, D314, E314, F#314, G#314, A314, B314, C315, D315, E315, F#315, G#315, A315, B315, C316, D316, E316, F#316, G#316, A316, B316, C317, D317, E317, F#317, G#317, A317, B317, C318, D318, E318, F#318, G#318, A318, B318, C319, D319, E319, F#319, G#319, A319, B319, C320, D320, E320, F#320, G#320, A320, B320, C321, D321, E321, F#321, G#321, A321, B321, C322, D322, E322, F#322, G#322, A322, B322, C323, D323, E323, F#323, G#323, A323, B323, C324, D324, E324, F#324, G#324, A324, B324, C325, D325, E325, F#325, G#325, A325, B325, C326, D326, E326, F#326, G#326, A326, B326, C327, D327, E327, F#327, G#327, A327, B327, C328, D328, E328, F#328, G#328, A328, B328, C329, D329, E329, F#329, G#329, A329, B329, C330, D330, E330, F#330, G#330, A330, B330, C331, D331, E331, F#331, G#331, A331, B331, C332, D332, E332, F#332, G#332, A332, B332, C333, D333, E333, F#333, G#333, A333, B333, C334, D334, E334, F#334, G#334, A334, B334, C335, D335, E335, F#335, G#335, A335, B335, C336, D336, E336, F#336, G#336, A336, B336, C337, D337, E337, F#337, G#337, A337, B337, C338, D338, E338, F#338, G#338, A338, B338, C339, D339, E339, F#339, G#339, A339, B339, C340, D340, E340, F#340, G#340, A340, B340, C341, D341, E341, F#341, G#341, A341, B341, C342, D342, E342, F#342, G#342, A342, B342, C343, D343, E343, F#343, G#343, A343, B343, C344, D344, E344, F#344, G#344, A344, B344, C345, D345, E345, F#345, G#345, A345, B345, C346, D346, E346, F#346, G#346, A346, B346, C347, D347, E347, F#347, G#347, A347, B347, C348, D348, E348, F#348, G#348, A348, B348, C349, D349, E349, F#349, G#349, A349, B349, C350, D350, E350, F#350, G#350, A350, B350, C351, D351, E351, F#351, G#351, A351, B351, C352, D352, E352, F

5

Tbn.

Tbn.

Tbn.

Tbn.

6

Tbn.

Tbn.

Tbn.

Tbn.

7

Tbn.

Tbn.

Tbn.

Tbn.

8

Tbn.    

Tbn.    

Tbn.    

Tbn.    

9

Tbn.    

Tbn.    

Tbn.    

Tbn.    

10

Tbn.    

Tbn.    

Tbn.    

Tbn.    

11

Tbn.

This system contains measures 11 and 12 for four tubas. Measure 11 features a melodic line in the first three staves (treble clef) and a bass line in the fourth staff (bass clef). Measure 12 continues the melodic development in the first three staves, while the fourth staff has a whole rest.

12

Tbn.

This system contains measures 13 and 14 for four tubas. Measure 13 shows a complex melodic pattern in the first three staves, with the fourth staff having a whole rest. Measure 14 continues the melodic lines in the first three staves, while the fourth staff has a whole rest.

14

Tbn.

This system contains measures 15 and 16 for four tubas. Measure 15 features a melodic line in the first three staves (bass clef) and a whole rest in the fourth staff. Measure 16 continues the melodic development in the first three staves, while the fourth staff has a whole rest.

17

Tbn.

Tbn.

Tbn.

Tbn.

19

Tbn.

Tbn.

Tbn.

Tbn.

21

Tbn.

Tbn.

Tbn.

Tbn.

Piece for Computer and 4 Tromboni

Death on the Border - III (Yearning)

Ali Riza SARAL

Moderato Cantabile ♩ = 108

Trombone

pp *p* *pp* *p*

6 Tbn.

mp *p* *mp*

11

Tbn.

mf

mp *mf* *mp* *pp* *p* *pp*

mf *f* *mf* *mp*

mp *mf* *mp*

16

Tbn.

mf

mp *mf* *mp* *mp* *mf* *mp*

mp *mp* *mf* *mp*

mp *mf* *mp*

21

Tbn.

Tbn.

Tbn.

Tbn.

Tbn.

26

Tbn.

Tbn.

Tbn.

Tbn.

31

Tbn.

Tbn.

Tbn.

Tbn.

36

Tbn.

mf

Tbn.

ff *f* *mf* *f* *mf*

f *ff* *f* *f* *ff* *f*

Tbn.

mf *f* *mf* *mf*

41

Tbn.

Tbn.

mf *f* *mf* *f*

mf *f* *mf*

f *mf*

46

Tbn.

f ————— *ff*

Tbn.

ff ————— *f* *pp* *f*

Tbn.

mf *f* ————— *mf* *f*

Tbn.

mf *f* ————— *mf* *f*

51

Tbn.

ff ————— *f* *ff* *ff*

Tbn.

ff ————— *mf* *f* ————— *mf* *f* ————— *f*

Tbn.

ff ————— *mf* *f* ————— *mf* *f* ————— *f*

Tbn.

ff ————— *mf* *f* ————— *mf* *f* ————— *f*

56

Tbn.

Tbn.

Tbn.

Tbn.

f

p *mp* *p* *mp*

61

Tbn.

Tbn.

Tbn.

Tbn.

mf *mp*

pp

pp

pp

Piece for Computer and 4 Tromboni

Death on the Border - IV (Ritual)

Allegro e giocoso ♩ = 126
con sordino

Trombone 1

mp

Trombone 2

Trombone 3

con sordino

mp

Trombone 4

Measures 1-4. Trombone 1 and 3 play a rhythmic pattern of quarter, dotted quarter, eighth, and quarter notes. Trombone 2 and 4 play whole rests. Dynamics: *mp* for Trombone 1, *con sordino* and *mp* for Trombone 3.

5

Tbn. 1

con sordino

mp

Tbn. 2

Tbn. 3

Tbn. 4

con sordino

mp

Measures 5-8. Trombone 1 and 3 play a rhythmic pattern of eighth, quarter, eighth, and quarter notes. Trombone 2 and 4 play whole rests. Trombone 4 has a melodic line in measures 7-8. Dynamics: *mp* for Trombone 1, *con sordino* and *mp* for Trombone 4.

9

Tbn. 1

mf

Tbn. 2

Tbn. 3

Tbn. 4

mf

Measures 9-12. Trombone 1 and 3 play a rhythmic pattern of quarter, dotted quarter, eighth, and quarter notes. Trombone 2 and 4 play whole rests. Trombone 4 has a melodic line in measures 11-12. Dynamics: *mf* for Trombone 1, *mf* for Trombone 4.

13

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

17

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

19

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

21

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

mp

mp

Detailed description: This system contains measures 21 and 22. Tbn. 1 (bass clef) plays a descending eighth-note pattern: G#2, F#2, E2, D2, C2, B1, A1, G1. Tbn. 2 (bass clef) plays a descending eighth-note pattern: G#2, F#2, E2, D2, C2, B1, A1, G1. Tbn. 3 (bass clef) is silent. Tbn. 4 (treble clef) plays a descending eighth-note pattern: G#4, F#4, E4, D4, C4, B3, A3, G3. Dynamics include *mp* for Tbn. 2 and Tbn. 4.

23

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

p

Detailed description: This system contains measures 23 and 24. Tbn. 1 (bass clef) plays a descending eighth-note pattern: G#2, F#2, E2, D2, C2, B1, A1, G1. Tbn. 2 (bass clef) plays a descending eighth-note pattern: G#2, F#2, E2, D2, C2, B1, A1, G1. Tbn. 3 (bass clef) is silent. Tbn. 4 (treble clef) plays a descending eighth-note pattern: G#4, F#4, E4, D4, C4, B3, A3, G3. Dynamics include *p* for Tbn. 2 and Tbn. 4.

27

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

mp

mp

mf

Detailed description: This system contains measures 27 and 28. Tbn. 1 (bass clef) plays a descending eighth-note pattern: G#2, F#2, E2, D2, C2, B1, A1, G1. Tbn. 2 (bass clef) is silent. Tbn. 3 (bass clef) plays a descending eighth-note pattern: G#2, F#2, E2, D2, C2, B1, A1, G1. Tbn. 4 (treble clef) plays a descending eighth-note pattern: G#4, F#4, E4, D4, C4, B3, A3, G3. Dynamics include *mp* for Tbn. 1 and Tbn. 3, and *mf* for Tbn. 4.

30

Tbn. 1

 Tbn. 2

 Tbn. 3

 Tbn. 4

mf *f* *p* *mp* *mf* *mp*

35

Tbn. 1

 Tbn. 2

 Tbn. 3

 Tbn. 4

mf *f*

38

Tbn. 1

 Tbn. 2

 Tbn. 3

 Tbn. 4

mp *mf* *pp* *p*

41

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

p

mp

ppp

pp

45

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

Piece for Computer and 4 Tromboni

Death on the Border - V (Oblation)

Ali Riza SARAL

Andante misterioso ♩ = 93

Trombone 1

Trombone 2

Trombone 3

Trombone 4

gliss. *f* con fuoco

Detailed description: This block shows the first five measures of the score for four trombones. All four parts are in bass clef with a 3/4 time signature. Measures 1-4 contain whole rests for all parts. In measure 5, Trombone 1 plays a glissando (marked 'gliss.' with a slur) starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is marked 'f' (forte) and 'con fuoco'.

6

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

gliss. *mf*

gliss. *f*

gliss. *mf*

gliss. *f*

gliss. *mf*

Detailed description: This block shows measures 6-8 of the score. Measure 6: Trombone 1 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'mf'. Trombone 2 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'f'. Trombone 3 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'mf'. Trombone 4 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'f'. Measure 7: Trombone 1 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'mf'. Trombone 2 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'f'. Trombone 3 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'mf'. Trombone 4 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'f'. Measure 8: Trombone 1 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'mf'. Trombone 2 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'f'. Trombone 3 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'mf'. Trombone 4 has a glissando (marked 'gliss.') starting on a whole note and ending on a half note, followed by a quarter rest. The dynamic is 'f'.

22

Tbn. 1

f espressivo *mf* *mf*

Tbn. 2

Tbn. 3

mp tenuto

Tbn. 4

mf risoluto *mp* tenuto

27

Tbn. 1

p *f* *mf*

Tbn. 2

mf espressivo *p*

Tbn. 3

Tbn. 4

decresc.

32

Tbn. 1

mf risoluto

Tbn. 2

ff *f* *f* *mp* *mf* risoluto

Tbn. 3

mf risoluto

Tbn. 4

ff espressivo *f* *f*

37

Tbn. 1

ff espressivo *f* *f* *mp*

Tbn. 2

ff espressivo *f*

Tbn. 3

f *f* *mp* *mf* risoluto

Tbn. 4

mp *mf* risoluto

42

Tbn. 1

mf risoluto *ff* espressivo

Tbn. 2

f *mp* *mf* risoluto

Tbn. 3

ff espressivo *f* *f*

Tbn. 4

ff espressivo *f* *f* *mp* *mf* risoluto

47

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

mf *f* *mp* *mf* risoluto

f espressivo *mf* *mp* *p*

mp *mf* risoluto

f espressivo *mf*

52

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

f espressivo *mf* *mp*

p *p* *pp* *f* espressivo

f espressivo *mf* *mp* *p* *mp*

mp *p* *p* *p* *pp*

57

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

p

mp

mp

mf

mf

p

mp

mp

mp

f *espressivo*

mf

f *espressivo*

mf

p

62

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

mf

calando

mf

calando

mf

calando

mf

calando

mf

calando

Tbn. 1

Tbn. 2

Tbn. 3

Tbn. 4

The image shows a musical score for four tubas, labeled Tbn. 1 through Tbn. 4. Each part is written in bass clef and spans three measures. Tbn. 1 and Tbn. 2 play a constant low note (represented by a black rectangle) throughout all three measures. Tbn. 3 begins with a half note on a high line (G4), marked with a fermata, and then joins the low note in the second measure. Tbn. 4 begins with a half note on a high line (B3), marked with a fermata, and then joins the low note in the second measure. All four parts end with a double bar line in the third measure.

Piece for Computer and Tromboni

Death on the Border - VI (Lamentation)

Ali Riza SARAL

Adagio tempo rubato ♩ = 100

This musical score is for the Trombone part of the piece 'Death on the Border - VI (Lamentation)' by Ali Riza Saral. It is written in bass clef with a 4/4 time signature. The tempo is Adagio tempo rubato, with a metronome marking of ♩ = 100. The score consists of nine staves, each containing musical notation with various dynamics, articulations, and performance instructions.

Staff 1: Starts with a whole rest, followed by a half note G2 (p), a half note F2 (pp), and a half note E2 (mf).

Staff 2 (Measures 6-12): Features a half note G2 (p), a half note F2 (p), a half note E2 (pp), and a half note D2 (mf) with the instruction *dolce e sostenuto*.

Staff 3 (Measures 13-20): Includes a half note G2 (mp), a half note F2 (p), a half note E2 (poco accel.), and a half note D2 (f) with the instruction *appenato*.

Staff 4 (Measures 21-26): Contains a half note G2 (mf), a half note F2 (p), a half note E2 (mf marcato), and a half note D2 (mf) with the instruction *I. Tempo*.

Staff 5 (Measures 27-35): Shows a half note G2 (ff), a half note F2 (mf), a half note E2 (sff), and a half note D2 (sfz) with the instruction *poco allargando*.

Staff 6 (Measures 36-41): Features a half note G2 (f), a half note F2 (p), a half note E2 (mf), and a half note D2 (mf) with the instruction *sostenuto poco a poco*.

Staff 7 (Measures 42-48): Includes a half note G2 (mf), a half note F2 (f), a half note E2 (mp), and a half note D2 (mf) with the instruction *I. Tempo*.

Staff 8 (Measures 49-54): Contains a half note G2 (mf), a half note F2 (p), a half note E2 (mp), and a half note D2 (p) with the instruction *decresc*.

Staff 9 (Measures 55-58): Shows a half note G2 (p), a half note F2 (p), a half note E2 (ppp), and a half note D2 (ppp) with the instruction *niente*.

Trombone 1 Piece for Computer and 4 Tromboni

Death on the Border-II (Moment)

Ali Riza SARAL

$\text{♩} = 120$
Allegro



Trombone 2 Piece for Computer and 4 Tromboni

Death on the Border-II (Moment)

Ali Riza SARAL

♩ = 120
Allegro



Trombone 3 Piece for Computer and 4 Tromboni

Death on the Border-II (Moment)

Ali Riza SARAL

♩ = 120
Allegro

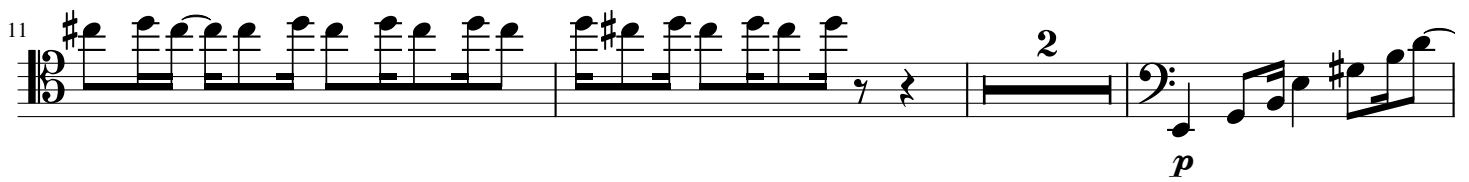


Trombone 4 Piece for Computer and 4 Tromboni

Death on the Border-II (Moment)

Ali Riza SARAL

♩ = 120
Allegro



Trombone 1 Piece for Computer and 4 Tromboni

Death on the Border - III (Yearning)

Ali Riza SARAL

♩ = 108

Moderato Cantabile

pp p pp p mp p mf mf

mf mf f mf f ff mf mf

f mf f f ff ff f

ff ff p mp p mp mp mf

Detailed description: This is a musical score for Trombone 1, spanning measures 1 to 53. The music is written in bass clef with a 3/4 time signature. The tempo is marked 'Moderato Cantabile' with a quarter note equal to 108 beats per minute. The key signature has one flat (B-flat). The score is divided into four systems. The first system (measures 1-19) features a melodic line with many slurs and accents, starting with a piano (pp) dynamic and moving through p, mp, and mf. The second system (measures 20-34) continues the melodic development, with dynamics ranging from mf to ff. The third system (measures 35-49) shows a more complex texture with some rests and a final crescendo to ff. The fourth system (measures 50-53) concludes the piece with a series of descending notes, ending on a half note. Dynamics throughout include pp, p, mp, mf, f, and ff, with various slurs and accents indicating phrasing and emphasis.

Trombone 2 Piece for Computer and 4 Tromboni

Death on the Border - III (Yearning)

Ali Riza SARAL

♩ = 108

Moderato Cantabile

11

mp *mf* *mp* *pp* *ppp* *mpmf* *mp* *mp* *mf* *mp* *p* *mp*

25

9

p *f* *ff* *f* *mf* *f* *mf* *mf* *f* *ff* *f* *pp*

49

5

f *ff* *mf* *f* *f* *f* *pp*

Trombone 3 Piece for Computer and 4 Tromboni

Death on the Border - III (Yearning)

Ali Riza SARAL

♩ = 108

Moderato Cantabile

11

mf > mf
mp > mp mp mf mp
mp < mf mp
p < mp

25

p
f < ff > f
f < ff > mf f mf
mf f > mf

50

f < ff > mf
f < mf
f > f f >
pp

Trombone 4 Piece for Computer and 4 Tromboni

Death on the Border - III (Yearning)

Ali Riza SARAL

♩ = 108

Moderato Cantabile

12

mp < *mfmp* *mp* < *mf* *mp* *mp* < *mf* *mp* *p* < *mp*

25

11 3

p *mf* < *f* *mf* *mf* < *f* *mf* *mf* *f* > *mf*

50

5

f < *ff* > *mf* *f* > *f* *f* > *pp*

Trombone 1 Piece for Computer and 4 Tromboni

Death on the Border - IV (Ritual)

Ali Riza SARAL

♩ = 126

Allegro e giocoso
con sordino

6

con sordino

6

9

mp *mp* *mf*

28

f *f* *mf*

34

mp *mp* *mf*

47

mf *mp* *p*

2

Detailed description: This block contains the musical notation for the first 50 measures of the Trombone 1 part. The score is written in bass clef with a 4/4 time signature. It features various musical notations including eighth notes, quarter notes, and rests. Dynamic markings such as *mp* (mezzo-piano), *mf* (mezzo-forte), *f* (forte), and *p* (piano) are placed below the staff. Rehearsal marks with measure numbers (6, 28, 34, 47) are indicated above the staff. A 'con sordino' instruction is present above the staff at measure 6. The piece concludes with a double bar line at measure 50.

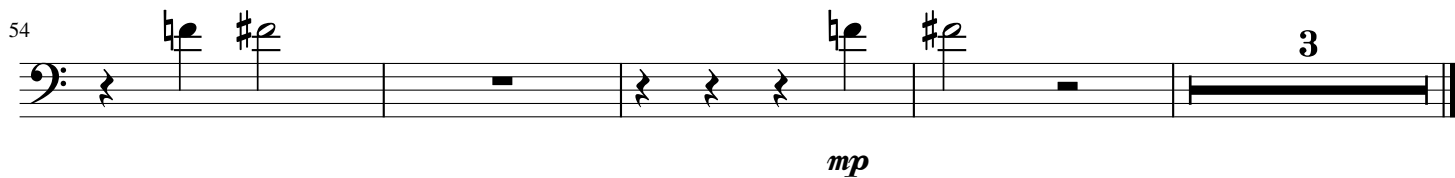
Trombone 2 Piece for Computer and 4 Tromboni

Death on the Border - IV (Ritual)

Ali Riza SARAL

♩ = 126
Allegro e giocoso

con sordino

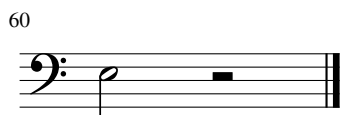
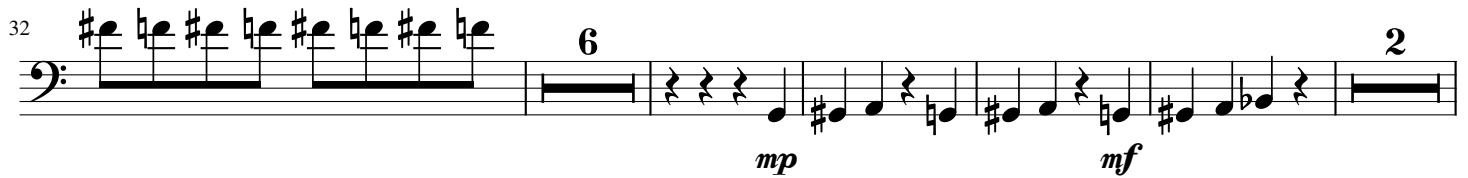


Trombone 3 Piece for Computer and 4 Tromboni

Death on the Border - IV (Ritual)

Ali Riza SARAL

♩ = 126
con sordino
Allegro e giocoso



Trombone 4 Piece for Computer and 4 Tromboni

Death on the Border - IV (Ritual)

Ali Riza SARAL

♩ = 126
con sordino
Allegro e giocoso



Trombone 1 Piece for Computer and 4 Tromboni

Death on the Border - V (Oblation)

Ali Riza SARAL

♩ = 93 gliss. Andante misterioso

4 2 gliss. gliss. 6

f *mf* *f*

con fuoco

18

mf *f* *mf* *mf* *p* *f* *mf*

espressivo

32

2 *mf* *ff* *f* *f* *mp* *mf*

risoluto *espressivo* *risoluto*

45

ff *mf* *f* *mp* *mf* *f* *mf* *mp* *p* *mp*

espressivo *risoluto* *espressivo*

59

2 4

mp *mf* *calando*

The musical score is written for Trombone 1 in bass clef. It consists of five systems of music. The first system starts with a tempo of ♩ = 93 and the marking 'Andante misterioso'. It includes a 4-measure rest, followed by a glissando, and then a 2-measure rest. The dynamics are *f* (with 'con fuoco'), *mf*, and *f*. The second system starts at measure 18 and includes a 3-measure rest, a 2-measure rest, and various dynamics: *mf*, *f*, *mf*, *mf*, *p*, *f*, and *mf*. The third system starts at measure 32 and includes a 2-measure rest, *mf* (marked 'risoluto'), *ff*, *f*, *f*, *mp*, and *mf* (marked 'risoluto'). The fourth system starts at measure 45 and includes *ff* (marked 'espressivo'), *mf*, *f*, *mp*, *mf* (marked 'risoluto'), *f*, *mf*, *mp*, *p*, and *mp*. The fifth system starts at measure 59 and includes a 2-measure rest, *mf*, a 4-measure rest, and *mp*. The piece ends with a double bar line.

Trombone 2 Piece for Computer and 4 Tromboni

Death on the Border - V (Oblation)

Ali Riza SARAL

♩ = 93
Andante misterioso

gliss.
6

f *mf* *f* *mp*
piacevole

13

5 6

mf *mp* *f* *mf* *mf* *p* *ff* *f* *f*
espressivo *espressivo*

35

mp *mf* *ff* *f* *f* *mp* *mf*
risoluto *espressivo* *risoluto*

47

f *mf* *mp* *p* *p* *p* *pp* *f* *mf* *mf* *p*
espressivo *espressivo*

60

mp *mp* *mf* *calando* 3

The musical score is written for Trombone 2 in bass clef. It begins with a tempo of 93 beats per minute and a mood of 'Andante misterioso'. The piece is marked with various dynamics including *f*, *mf*, *f*, *mp*, *piacevole*, *mf*, *mp*, *f*, *mf*, *mf*, *p*, *ff*, *f*, *f*, *mp*, *mf*, *ff*, *f*, *f*, *mp*, *mf*, *f*, *mf*, *mp*, *p*, *p*, *p*, *pp*, *f*, *mf*, *mf*, and *p*. Articulations include glissandos, accents, and slurs. The piece concludes with a triplet of eighth notes marked 'calando'.

Trombone 3 Piece for Computer and 4 Tromboni

Death on the Border - V (Oblation)

Ali Riza SARAL

♩ = 93 gliss. Andante misterioso

5

f *mf* *f* *mp*
piacevole

16

mf *mp* *mp*
risoluto *mp*
tenuto

26

mf
risoluto *ff* *f*
espressivo

38

f *mp* *mf*
risoluto *ff* *f* *f* *mp* *mf*
espressivo *risoluto*

50

f *mf* *mp* *p* *mp* *mp* *f* *mf* *mf*
espressivo *calando*

66

2

The musical score is written for Trombone 3 in bass clef. It begins with a tempo of 93 beats per minute and a marking of 'Andante misterioso'. The first system (measures 1-15) includes a five-measure rest, followed by eighth-note patterns with glissando markings and dynamic changes from *f* to *mf* to *f*, ending with a four-measure rest and a *mp* 'piacevole' section. The second system (measures 16-25) continues with eighth-note patterns, dynamic changes from *mf* to *mp* to *mp* 'risoluto' to *mp* 'tenuto'. The third system (measures 26-37) features a series of eighth-note patterns with dynamic changes from *mf* 'risoluto' to *ff* to *f* 'espressivo'. The fourth system (measures 38-49) shows more complex patterns with dynamic changes from *f* to *mp* to *mf* 'risoluto' to *ff* 'espressivo' to *f* to *f* to *mp* to *mf* 'risoluto'. The fifth system (measures 50-65) includes a series of eighth-note patterns with dynamic changes from *f* to *mf* to *mp* to *p* to *mp* to *mp* to *f* to *mf* to *mf* 'calando'. The sixth system (measures 66-70) begins with a six-measure rest, followed by a two-measure rest, and ends with a double bar line.

Trombone 4 Piece for Computer and 4 Tromboni

Death on the Border - V (Oblation)

Ali Riza SARAL

♩ = 93
Andante misterioso

6

gliss.

f

gliss.

f

gliss.

13

mp *mf* *mp* *p* *mf*

piacevole *tenuto* *risoluto*

25

mp *decresc.* *ff* *f* *f*

tenuto *espressivo*

37

mp *mf* *ff* *f* *f* *mp* *mf*

risoluto *espressivo* *risoluto*

48

f *mf* *mp* *p* *p* *p* *pp* *f* *mf*

espressivo *espressivo*

61

mf *p* *mf* *calando*

The musical score is written for Trombone 4 in bass clef, 3/4 time. It consists of six staves of music. The first staff begins with a tempo marking of ♩ = 93 and the mood 'Andante misterioso'. It features a six-measure rest followed by a glissando and a forte (f) dynamic. The second staff continues with glissandos and a forte (f) dynamic. The third staff starts at measure 13 with dynamics ranging from mezzo-piano (mp) to mezzo-forte (mf), including the instruction 'piacevole'. The fourth staff, starting at measure 25, includes a decrescendo and a fortissimo (ff) section with 'espressivo' markings. The fifth staff, starting at measure 37, shows a variety of dynamics from mp to ff, with 'risoluto' and 'espressivo' markings. The sixth staff, starting at measure 48, continues with dynamics from f to pp, also marked 'espressivo'. The final staff, starting at measure 61, includes a triplet, a mezzo-forte (mf) dynamic, and a 'calando' (ritardando) instruction.